

EXHIBIT B

I CLAIM:

1. A computer system for hosting computing clusters for clients, comprising:
a first cluster comprising a set of computing resources in a first configuration; and
a second cluster comprising a set of computing resources in a second configuration,
wherein the first configuration differs from the second configuration and wherein the first configuration provides a first computing environment for performing a first client task and the second configuration provides a second computing environment for performing a second client task.
2. The system of claim 1, wherein the computing resources comprise processing nodes, data storage shared by the processing nodes, and one or more communications networks linking the processing nodes to each other and to the data storage.
3. The system of claim 2, wherein the first configuration differs from the second configuration based on configuration of the processing nodes in the first and second clusters.
4. The system of claim 2, wherein the first configuration differs from the second configuration based on configuration of the data storage in the first and second clusters.
5. The system of claim 2, wherein the first configuration differs from the second configuration based on configuration of the one or more communications networks provided in the first and second clusters.
6. The system of claim 1, further comprising a monitoring system monitoring operations of the first and second clusters, identifying operational and connectivity problems, and issuing an alert in response to the identified problems indicating a corresponding one of the first and second clusters associated with the identified problems.

7. The system of claim 6, wherein the monitoring system comprises a main monitor that operates to monitor the first and second clusters to identify the operation and connectivity problems and further comprises monitors for each node of the first and second clusters operating to check for hardware and software problems within a particular node and to report the hardware and software problems to the main monitor.

8. The system of claim 7, wherein one of the main monitors is provided within each of the first and second clusters and the system further comprises a central monitoring system in communication with the main monitors of the first and second clusters.

9. The system of claim 1, further comprising means for providing communication access from a public, digital communications network to the first and second clusters and means for limiting access to the first cluster to communication access from a first client associated with the first client task and limiting access to the second cluster to communication access from a second client associated with the second client task.

10. The system of claim 1, further comprising a private communications network linked to a public communications network accessible by clients accessing the first and second clusters and further comprising a monitoring system linked to the private communications network for monitoring operation of the first and second clusters, wherein the first and second clusters each comprise a private cluster network for communications among the computing resources of a particular cluster and a gateway mechanism positioned between the private cluster network and the private communications network, whereby the communications within the first and second clusters are isolated.

11. A hosted cluster system for a plurality of clients linked to a public communications network, comprising:

a plurality of computing clusters each having a set of resources and a configuration selected to support performance of a task associated with one of the clients;

a private company network linked to each of the computing clusters;

an access control mechanism positioned between the public communications network and the private company network controlling access to the computing clusters; and

a monitoring system linked to the private company network operating to monitor operating ones of the computing clusters and issue alerts in response to identified operating problems.

12. The system of claim 11, wherein the configuration for each of the plurality of computing clusters differs from other ones of the configurations and comprises providing hardware and software portions of the resources as a High Performance Computing (HPC) cluster.

13. The system of claim 12, wherein each of the computing clusters comprises at least one processing node and at least one dedicated storage device.

14. The system of claim 11, further comprising a gateway mechanism on the private company network for each of the computing clusters operating to isolate communications within each of the computing clusters from communication in other ones of the computing clusters.

15. The system of claim 11, wherein the access control mechanism comprises a firewall operating to process each access request for one of the computing clusters including determining the one of the computing clusters corresponding to the access request and verifying the one of the clients transmitting the access request has authorization to access the one of the computing clusters.

16. The system of claim 11, wherein the monitoring system comprises a monitor provided for each node in the set of resources of each of the computing clusters that operates to check for problems associated with node hardware and software.

17. A method for hosting clusters for a plurality of clients, comprising:
providing a plurality of clusters each comprising nodes, data storage, and a private communications network;
communicatively linking the clusters via a first communications network, wherein a gateway mechanism is provided for each of the clusters to provide a link to the first communications network and to isolate internal cluster communications on the private communications network from the first communications network and other ones of the clusters;
configuring each of the clusters to provide a computing environment suited for a set of client computing parameters;
communicatively linking the first communications network to a second communications network accessible by the clients; and
operating each of the clusters to perform a computing task presented by one of the clients.

18. The method of claim 17, further comprising controlling access of the clients to the clusters via the second communications network and the first communications network such that a particular one of the clients is only able to communicate with one of the clusters configured according to the set of client computing parameters associated with the particular client.

19. The method of claim 17, further comprising monitoring the clusters on a per node basis and providing reports based on the monitoring to a central monitoring system, wherein the central monitoring system further monitors availability and connectivity of the clusters via the first communications network.

20. The method of claim 17, wherein the configuring comprises selecting and configuring the nodes, the data storage, and the private communications network to suit the computing environment and wherein at least some of the computing environments differ from other ones of the computing environments.